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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/749,281

12/31/2003

Norman T. Huff

24997D

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22889 7590 03/28/2007
OWENS CORNING
2790 COLUMBUS ROAD
GRANVILLE, OH 43023

EXAMINER

SAN MARTIN, EDGARDO

ART UNIT

PAPER NUMBER

2837

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/749,281

Applicant(s)

HUFF ET AL.

Examiner

Edgardo San Martin

Art Unit

2837

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/15/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 – 11 and 32 – 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 4,993,513) in view of Fritz (US 5,955,707).

With respect to claims 1 and 32, Inoue et al. teach a muffler/exhaust pipe system comprising a muffler (Fig.4, Item 30) having an outer shell (Fig.4, Item 33d) formed from a composite material wherein a pipe (Fig.4, Item 31) extends through the outer shell; a collar (Fig.4, Item 34) having a wide end and a narrow end wherein the narrow end is fitted around the exhaust pipe (Fig.4, Item 31)(Col.2, Line 30 – Col.3, Line 4 and Col.4, Lines 39 – 60); but fail to disclose wherein a perforated pipe extends through the outer shell and a bushing fitted around the wide end of the collar wherein the muffler shell is in contact with the bushing.

Nevertheless, Fritz teaches a muffler comprising a muffler (Fig.4, Item 3) having an outer shell (Fig.4, Item 3) formed from a composite material wherein a perforated pipe (Fig.4, Item 29) extends through the outer shell; and a bushing (Fig.4, Item 5) fitted around the perforated pipe wherein the muffler shell is in contact with the bushing (Fig.4).

The Examiner considers that it would have been an obvious matter of design choice to employ a multilayer bushing because depending upon the application, different suitable materials and configuration would be needed as to sustained various environment characteristics such as high temperature, strength applied to the system, relative movement between parts, vibrations, etc.; the Examiner considers that any person with ordinary skill in the art would employ a specific bushing configuration depending upon the application constraints and desired results. Furthermore, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Fritz bushing configuration with the Inoue et al. design because the bushing would provide a vibration isolation feature that would help reduce the presence of vibration during the use of the vehicle that would produce noise, and would help maintain the consistency of the muffler structure.

With respect to claims 2 – 11 and 33 - 43, the Examiner considers that the obvious combination of the patents to Inoue et al. and Fritz teach the limitations described in the claims (Inoue et al.: Fig.4; Col.2, Line 30 – Col.3, Line 4 and Col.4, Lines 39 – 60; and Fritz: Fig.4; Col.2, Line 14 – Col.3, line 53). In addition, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Art Unit: 2837

2. Claims 12 – 17 and 19 – 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 4,993,513) in view of Fritz (US 5,955,707), and further in view of Zahn et al. (US 5,726,398).

With respect to claims 16 and 22, Inoue et al. and Fritz teach the limitations discussed in a previous rejection, but fail to disclose wherein the muffler design is part of a bumper/muffler/exhaust pipe system.

On the other hand, Zahn et al. teaches a bumper /muffler /exhaust pipe configuration (Figs.1 – 7; Col.4, Line 34 – Col.8, Line 37).

The Examiner considers that it would have been an obvious matter of design choice to employ a multilayer bushing because depending upon the application, different suitable materials and configuration would be needed as to sustained various environment characteristics such as high temperature, strength applied to the system, relative movement between parts, vibrations, etc.; the Examiner considers that any person with ordinary skill in the art would employ a specific bushing configuration depending upon the application constraints and desired results. Furthermore, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to combine the Zahn et al. configuration with the Inoue et al. and Fritz design because by employing the bumper as part of the muffler, space and

Art Unit: 2837

sound absorbing material could be economized improving the production cost of the vehicle.

With respect to claims 12 – 17 and 19 – 31, the Examiner considers that the obvious combination of the patents to Inoue et al., Fritz and Zahn et al. teach the limitations as described in the claims (Inoue et al.: Fig.4; Col.2, Line 30 – Col.3, Line 4 and Col.4, Lines 39 – 60; Fritz: Fig.4; Col.2, Line 14 – Col.3, line 53; and Zahn et al.: Figs. 1 – 7; Col.4, Line 34 – Col.8, Line 37). In addition, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416; furthermore, it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers that the obvious combinations of the patents to Inoue et al., Fritz and Zahn et al. teach the limitations described in the claims as discussed above.

Conclusion

4. The attached hereto PTO Form 892 lists prior art made of record that the Examiner considered it pertinent to applicant's disclosure.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

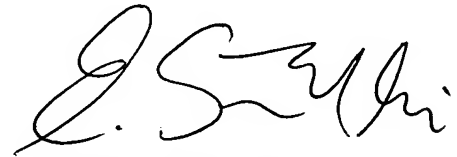
Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-2800 ext.37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2837

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "E. San Martín".

Edgardo San Martín
Primary Examiner
Art Unit 2837
Class 181
March 22, 2007